



Climate change, environmental degradation and migration

Author(s): Warner K, Hamza M, Oliver-Smith A, Renaud F, Julca A
Year: 2010
Journal: Natural Hazards. 55 (3): 689-715

Abstract:

Climate change will have a progressively increasing impact on environmental degradation and environmentally dependent socio-economic systems with potential to cause substantial population displacement. The key concerns in Less Developed Countries (LDCs) will include serious threats to food security and health, considerable economic decline, inundation of coastal areas, and degradation of land and fresh water resources (Reuveny in Polit Geogr, 2007). The relationship between environmental change and potential humanitarian crises has been captured by: McGregor (Geography and refugees: patterns and processes of change, Belhaven Press, London, pp 159-70, 1993), Kibreab (Environment and Population Change, International Union for the Scientific Study of Population, LiSge, 1994), Kibreab (Disasters 21(1):20-38, 1997), Myers (Bioscience 43:752-761, 1993), Myers and Kent (Environmental exodus: an emergent crisis in the global arena, Climate Institute, Washington, DC, 1995), Black (New Issues in Refugee Research, Working Paper no. 34, 2001), Lee (Environmental matters: conflict, refugees and international relations, World Human Development Institute Press, Seoul and Tokyo, 2001), Castles (Environmental Change and Induced Migration: Making Sense of the Debate Working Paper No. 70, 2002), Christian Aid (Human tide: the real migration crisis, Christian Aid, London, 2007), and Massey et al. (<http://www.psc.isr.umich.edu/pubs/pdf/rr07-615.pdf> , 2007). However, we know little about the interplay between environmental change and stresses on ecological systems, resulting socio-economic vulnerability and potential outcomes in terms of population displacement or induced migration. So far these relationships are poorly conceptualized, lack systematic investigation, and are reduced to simplistic causal explanations. This leads to misleading conclusions that deny the complex multivariate processes-environmental, political, social, and economic- which are the root causes of environmentally induced migration and/or conflict. When people are faced with severe environmental degradation they have one of three options: (1) stay and adapt to mitigate the effects; (2) stay, do nothing and accept a lower quality of life; or (3) leave the affected area. The process of movement and migration is usually subject to a complex set of push and pull forces, where push forces relate to the source area while pull factors relate to the destination. These forces are in constant flux, as much as environmental change, and interact with socio-economic and political conditions including state or government decision making powers, which can tip the balance at any point by either denying movement or the right to settle elsewhere. The paper focuses on how environmental change and environmental hazards contribute to the migration by exploring the mechanisms through which vulnerability and migration are linked-via livelihoods, relocation policies, and other factors. The paper begins by outlining important definitions of what is environmentally induced migration. The paper also considers the question of whether migration is a process that reduces or increases vulnerability. The paper draws on multidisciplinary literature including ecology, environment, and climate change; sociology of migration; anthropology of displacement; and economics; but also on preliminary from various case studies in Egypt, Vietnam, and Mozambique.

Source: <http://dx.doi.org/10.1007/s11069-009-9419-7>

Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Extreme Weather Event, Food/Water Quality, Food/Water Security, Food/Water Security, Human Conflict/Displacement, Sea Level Rise, Temperature

Extreme Weather Event: Drought, Flooding, Hurricanes/Cyclones

Food/Water Security: Food Access/Distribution

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Other Projection Model/Methodology: Discussion only

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type:

format or standard characteristic of resource

Policy/Opinion, Research Article, Review

Resilience:

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to

Climate Change and Human Health Literature Portal

shifting climate impact circumstances while continuing to function

A focus of content

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content